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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/671,455	09/29/2003	Mitsuru Kato	242963US0CONT	6647

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ALEXANDRIA, VA 22314

EXAMINER
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SELLERS, ROBERT E

ART UNIT	PAPER NUMBER
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1712

DATE MAILED: 12/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/671,455

Applicant(s)

KATO ET AL.

Examiner

Robert Sellers

Art Unit

1712

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 28 November 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 24-48 is/are pending in the application.
- 4a) Of the above claim(s) 25-28, 31-34, 42, 43, 46 and 47 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 24, 29, 30, 35-41, 44, 45 and 48 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

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1. The election with traverse of Group I in the reply filed on November 28, 2005 is acknowledged. The traversal is on the ground(s) that both the intermediate and final products could also be used as a molding formulation. This is not found persuasive because the intermediate of the separable fastener without the curing agent of Group II, without the plasticizing compound of Group III, and the tertiary amine of Group IV is mutually exclusive from the other groups due to the absence of the other components. There is no evidence that they are obvious variants and the intermediate is useful other than in the final product, such as in a molding formulation (MPEP § 806.05(j)). There is no requirement within the intermediate-final product reason for distinctness for the use of the final product to exclude the alternative use of the intermediate.

2. The method of manufacturing a separable fastener of Group V can be used to make another materially different product, such as coating a polyester or polyamide formulation on a back surface of the separable fastener, thereby satisfying the first instance of the process of making and product made rationale from MPEP § 806.05(f).

The requirement is still deemed proper and is therefore made FINAL.

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Claims 26, 27, 31-34, 42, 43, 46 and 47 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to nonelected inventions, there being no allowable generic or linking claim. Applicant timely traversed the restriction requirement in the reply filed on November 28, 2005. Claims 25 and 28 are withdrawn as being directed to the non-elected presence of the optional aqueous dispersion of an acrylic resin.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 24, 29, 30, 35-41, 44, 45 and 48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Higashinaka Patent No. 5,231,738 and Japanese Patent No. 62-112504 in view of Adachi et al. Patent No. 6,322,851 and Kato et al. Patent No. 6,479,153.

3. Higashinaka (Figures 1(a) and 1(b)) shows a separable fastener comprising a base fabric 2 (col. 5, lines 27-29) having a plurality of hook-shaped fasteners 3 or a plurality of mushroom-shaped projections on the front surface (col. 5, lines 32-35), and a sheet with a plurality of loop-shaped fasteners 4 (col. 5, lines 21-25) and an adhesive layer 5 (col. 8, lines 1-12) as defined in claim 44. The claimed aqueous dispersion of a polyurethane as the adhesive layer is not recited.

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4. The following is a description of Japanese Patent No. 62-112504 based on a translation submitted in parent application no. 10/059,410 on January 31, 2002 which has been lost. It would be greatly appreciated if the translation be submitted with the response to this Office action if available.

5. Japanese Patent No. 62-112504 sets forth a back coating for a separable fastener (page 4, last paragraph) prepared from an aqueous polyurethane dispersion derived from the reaction of the elected species of polytetramethylene glycol, an organic diisocyanate such as the preferred species of isophorone diisocyanate (page 5, lines 14-16) exemplified in the instant specification (page 19, Table 1, "IPDI") and 2,2-dimethylolbutanoic acid (page 6, line 5).

6. The claimed chain extending agent is not recited.

7. Adachi et al. shows a polyurethane emulsion wherein a film obtained therefrom has a modulus of elasticity at 90°C of as low as  $2.0 \times 10^7$  (col. 10, lines 20-25) wherein the polyurethane is produced by reacting a high molecular polyol (col. 11, lines 21-23) including 2,2-dimethylbutyric acid (col. 14, line 7) as an active hydrogen and hydrophilic groups-containing compound (col. 13, lines 45-47 and 60-63), an organic diisocyanate and a chain extender.

8. Kato et al. reports a polyurethane emulsion (col. 11, lines 31-34) prepared by reacting a macromolecular polyol, an organic diisocyanate, a chain extender and 2,2-bis(hydroxymethyl)butyric acid (col. 13, lines 46-48 and 64-65; and col. 14, lines 4-10).

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9. Adachi et al. (col. 11, lines 21-23 and col. 13, lines 1-20) and Kato et al. (col. 11, lines 30-33 and col. 13, lines 25-47) teach the chain extension of polyurethane emulsions with chain extenders such as the elected species of piperazine to impregnate fibrous substrates.

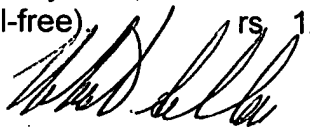
10. It would have been obvious to employ the aqueous polyurethane dispersion of the Japanese patent as the adhesive layer of Higashinaka in order to impart durability and washing or dry cleaning resistance (Derwent abstract, Advantage section).

11. It would have been obvious to polymerize the polyurethane of the Japanese patent and utilized in Higashinaka in the presence of the chain extender of Adachi et al. and Kato et al. in order to increase the molecular weight.

12. Adachi et al. discloses an elastic modulus within the claimed limits. Although the claimed inherent viscosity is not mentioned, the equivalent aqueous polyurethane dispersion of Adachi et al. and Kato et al. derived from equivalent reactants as those claimed inherently possess the claimed inherent viscosity. The burden of proof is shifted to applicants to show the lack of inherent viscosity within the claimed parameters for the prior art polyurethane emulsions (In re Fitzgerald, 205 USPQ 594, CCPA 1980).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert Sellers whose telephone number is (571) 272-1093. The examiner can normally be reached on Monday to Friday from 9:30 to 6:00. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at (866) 217-9197 (toll-free).

  
ROBERT E.L. SELLERS  
PRIMARY EXAMINER

rs, 12/19/2005